

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
WASHINGTON, DC 20549



FORM 11-K

**FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS AND SIMILAR
PLANS PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

☒ **ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2004

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number 001-16397

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

AGERE SYSTEMS INC. REPRESENTED 401(k) PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

AGERE SYSTEMS INC.
1110 AMERICAN PARKWAY NE
ALLENTOWN, PENNSYLVANIA 18109



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**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

TABLE OF CONTENTS

	<u>Page</u>
REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	1
FINANCIAL STATEMENTS	
Statements of Net Assets Available for Benefits as of December 31, 2004 and 2003	2
Statements of Changes in Net Assets Available for Benefits for the years ended December 31, 2004 and 2003	3
Notes to financial statements	4-9
SUPPLEMENTAL SCHEDULE*	
Schedule H, Line 4i - Schedule of Assets (Held at End of Year) as of December 31, 2004	10
CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	12

*Other schedules included in Section 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA are omitted because they are not required



KPMG LLP
345 Park Avenue
New York, NY 10154

Report of Independent Registered Public Accounting Firm

To the Plan Administrator and the Participants of
The Agere Systems Inc. Represented 401(k) Plan:

We have audited the accompanying statements of net assets available for benefits of The Agere Systems Inc. Represented 401(k) Plan (the Plan) as of December 31, 2004 and 2003, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2004 and 2003, and the changes in net assets available for benefits for the years then ended, in conformity with U.S. generally accepted accounting principles.

Our audit was performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule H, Line 4i- schedule of assets (held at end of year) as of December 31, 2004 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

New York, New York
June 20, 2005

KPMG LLP

AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
AS OF DECEMBER 31, 2004 AND 2003
(dollars in thousands)

	December 31	
	<u>2004</u>	<u>2003</u>
ASSETS		
Investment in the Master Trust.....	\$ 61,989	\$ 80,267
Participant loans.....	<u>816</u>	<u>951</u>
Total investments	<u>62,805</u>	<u>81,218</u>
Net assets available for benefits	<u>\$ 62,805</u>	<u>\$ 81,218</u>

The accompanying notes are an integral part of these financial statements.

AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
FOR THE YEARS ENDED DECEMBER 31, 2004 and 2003
(dollars in thousands)

	December 31	
	2004	2003
Additions to net assets attributed to:		
Investment income (loss):		
Plan interest in Agere Systems Inc. 401(k)		
Master Trust investment income.....	\$ (512)	\$ 20,554
Interest on participant loans	<u>153</u>	<u>192</u>
Total investment income (loss).....	<u>(359)</u>	<u>20,746</u>
Contributions:		
By participants	1,467	2,507
By the employer	<u>748</u>	<u>1,384</u>
Total contributions	<u>2,215</u>	<u>3,891</u>
Total additions.....	<u>1,856</u>	<u>24,637</u>
Deductions from net assets attributed to:		
Benefits paid to participants	19,931	31,716
Administrative expenses.....	<u>6</u>	<u>5</u>
Total deductions	<u>19,937</u>	<u>31,721</u>
Net decrease before net transfers to other plans.....	(18,081)	(7,084)
Net transfer of assets to other plans.....	<u>(332)</u>	<u>(281)</u>
Net decrease	<u>(18,413)</u>	<u>(7,365)</u>
Net assets available for benefits:		
Beginning of year	<u>81,218</u>	<u>88,583</u>
End of year	<u>\$ 62,805</u>	<u>\$ 81,218</u>

The accompanying notes are an integral part of these financial statements.

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

NOTES TO FINANCIAL STATEMENTS

1. PLAN DESCRIPTION

The following brief description of the Agere Systems Inc. Represented 401(k) Plan (the "Plan" or "ASRP") provides only general information. For a complete description of the Plan, participants should refer to the plan document. The Plan, which is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"), is intended to satisfy all the requirements of a qualified retirement plan under §401(a) of the Internal Revenue Code ("IRC") and incorporates changes to plan qualification requirements under IRC §401(a) that were made by the Economic Growth and Tax Relief Reconciliation Act of 2001.

GENERAL

The Plan is a defined contribution plan established as of January 1, 2002, by Agere Systems Inc. ("Agere" or the "Company") to provide a convenient way for U.S. non-management employees to save for retirement on a regular and long-term basis. The assets of the Plan are held in a trust (the "Master Trust") managed by Fidelity Management Trust Company (the "Trustee"). The Master Trust consists of the assets of the ASRP and the Agere Systems Inc. Management 401(k) Plan.

ELIGIBILITY

Eligible employees of the Company who were participants in the Lucent Technologies Inc. Long Term Savings and Security Plan on December 31, 2001, automatically became participants in the ASRP on January 1, 2002. Other eligible employees must enroll in the ASRP in order to participate. An eligible employee (generally an active employee in a bargaining unit represented by a union, and having at least six months of service) enters the Plan by authorizing a payroll contribution and directing the contribution among various investment options or by rolling over a balance from another qualified plan or individual retirement account.

INVESTMENTS

As of December 31, 2004, participants can direct their contributions among fifteen different investment options of the Master Trust.

A description of each investment option follows:

The Fidelity Diversified International Fund is a growth mutual fund that invests internationally. Primarily, it invests in common stocks of foreign securities. This fund replaced the Capital Guardian International Equity fund, which prior to December 31, 2003, was the investment option with the most similar investment objective.

The Goldman Sachs Collective Trust – Structured Small Cap Fund is a small cap bank collective fund available for qualified ERISA plans. The Fund invests, under normal circumstances, at least 90% of its total assets in equity securities of U.S. issuers, including foreign issuers that are traded in the United States. This fund replaced the Morgan Stanley Institutional Fund Trust – Small Cap Core Portfolio, which prior to December 31, 2003, was the investment option with the most similar investment objective.

The BlackRock Core Bond Total Return Portfolio invests mainly in investment grade bonds with maturities from five to fifteen years. Some of the bond categories are United States Treasuries, asset-backed securities, and corporate bonds.

The JP Morgan Prime Money Market Fund invests in high quality commercial paper and other short-term debt securities.

The Vanguard US Growth Fund is a domestic growth fund which invests mainly in stocks of large-capitalization United States companies with strong growth and reasonable financial strength.

The Equity Index Fund invests primarily in stocks that comprise the Russell 3000 Index in proportion to their weighting in the index.

AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN

NOTES TO FINANCIAL STATEMENTS

The Agere Class A Stock Fund invests primarily in Class A common stock of Agere as well as some short-term investments for liquidity purposes. This fund is open to employee contributions and also holds Company matching contributions which are made in company stock. Ownership is measured in units of the fund instead of shares of stock.

The Agere Class B Stock Fund is a closed fund that invests primarily in Class B common stock of Agere received as a result of the spin-off of Agere from Lucent, as well as some short-term investments for liquidity purposes. Ownership is measured in units of the fund instead of shares of stock.

The Fidelity Magellan Fund is invested in stock and other securities of domestic and foreign issuers. The fund may invest in growth or value stocks, or both.

The Fidelity Equity – Income Fund is a growth and income mutual fund normally investing at least 65% of total assets in income-producing equity securities.

The Fidelity Managed Income Portfolio II Fund is a common/collective trust that invests in investment contracts offered by major insurance companies and in certain types of fixed income securities.

The Pimco High Yield Administration Fund is a fixed income mutual fund. PIMCO focuses its investments on the relatively higher-quality securities within the "junk bond" ratings.

The Vanguard Inflation-Protected Securities Fund is a mutual fund that invests primarily in inflation-indexed bonds issued by the U.S. government, its agencies and instrumentalities, and corporations.

The Fidelity Freedom Funds are asset allocation mutual funds invested in a combination of underlying Fidelity stock, bond and money market funds. They include Fidelity Freedom Income Fund, Fidelity Freedom 2000 Fund, Fidelity Freedom 2010 Fund, Fidelity Freedom 2020 Fund, Fidelity Freedom 2030 Fund and Fidelity Freedom 2040 Fund, where the year represents the target retirement horizon year. The Fidelity Freedom Income Fund is designed for those who are already retired. The allocation strategy among the underlying funds contained in each Fidelity Freedom Fund is based on the number of years until the Freedom Fund's target retirement date, and becomes more conservative over time so participants can stay with the same fund before and after retirement.

The following fund was available until October 2003:

The Avaya Stock Fund was a closed fund that invested primarily in the common stock of Avaya Inc. ("Avaya") received as a result of the spin-off of Avaya from Lucent Technologies Inc. ("Lucent"), as well as some short-term investments for liquidity purposes. Ownership was measured in units of the fund instead of shares of stock. The fund was liquidated in October 2003.

The following fund was available until December 2004:

The Lucent Stock Fund was a closed fund that invests primarily in the common stock of Lucent acquired prior to January 1, 2002, as well as some short-term investments for liquidity purposes. Ownership was measured in units of the fund instead of shares of stock. This fund was liquidated in December 2004, and the assets of the fund were transferred to the JP Morgan Prime Money Fund.

CONTRIBUTIONS

Employee contributions may be authorized from weekly pay in \$5 increments up to limits set forth in the plan document ("Matched Contribution"). A supplementary contribution may be authorized, if desired, consisting of a total of one or more \$5 increments ("Unmatched Contribution") which, when added to the Matched Contribution, results in a total contribution of up to a maximum of 16% of the employee's basic weekly rate of pay. An employee may designate contributions as pre-tax contributions, after-tax contributions or a combination of pre-tax and after-tax contributions. The IRC limits the maximum amount of an employee's contribution on a pre-tax basis to \$13,000 and \$12,000 in 2004 and 2003, respectively. Participants who have completed one year of service receive a company matching contribution. The company matching contribution is 66 2/3% of the lesser of the amount actually contributed or the first 6% of the participant's eligible compensation. The Company's matching contributions are initially invested entirely in the Agere Class A Stock Fund but may be reallocated into any other investment option by the participant. Participants are always 100% vested in their contributions to the ASRP, plus earnings thereon. Until May 31, 2003, Company matching contributions were vested upon completion of five years of service or upon the occurrence of certain prescribed events, regardless of years of service. Effective June 1, 2003, the Plan was amended to give participants a fully vested interest in Company matching contributions at all times. Company contributions are not made with respect to Unmatched Contributions. Company contributions (and related earnings) in which a terminated participant is not vested are forfeited. These forfeitures can be offset against future Company contributions. At December 31, 2004 and 2003, there were no forfeited non-vested amounts. A determination was

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

NOTES TO FINANCIAL STATEMENTS

made during 2003 that partial termination of the Plan had occurred effective January 1, 2002. Action has been taken to restore forfeitures to all affected participant accounts subsequent to the partial termination.

Eligible employees represented by the International Brotherhood of Electrical Workers ("IBEW") can also direct their payroll deductions to an IBEW sponsored savings trust, which is qualified under IRC § 401(a). Payroll deductions directed to this trust are considered after-tax contributions, and are subject to the same limitations as contributions to the Plan.

LOANS

Active employees participating in the ASRP may access the money in their account through the Plan's loan feature. The minimum loan amount is \$1,000 and the maximum is the lesser of \$50,000 less the highest outstanding loan balance during the previous twelve months, or 50% of the participant's vested account balance less any outstanding loans. Upon default, as defined in the plan document, participants are considered to have received a distribution and are subject to income taxes on the distributed amounts. Interest is charged at the prime rate. Loan terms vary and can be up to 15 years for the purchase of a primary residence.

DISTRIBUTIONS

Participants may withdraw all or part of the value of their account, prior to termination from employment, in accordance with the rules set forth in the plan document. Participants who are at least age 59½ may withdraw their entire account balance without penalty. A participant who separates from service at any time and for any reason other than death is entitled to request and receive the entire amount in the participant's account. However, if the value of the participant's account is \$3,500 or less, it will be distributed as soon as practical after the participant's termination. A participant who retires or separates from service due to permanent disability, may choose to receive a lump sum distribution, or discretionary withdrawals of at least \$500 each. When a participant dies, the entire amount in the participant's account is distributed in a single payment to the participant's beneficiary(ies) as soon as practical.

PARTICIPANT ACCOUNTS

Each participant's account is credited with the participant's contribution and allocations of (a) the Company's contribution and (b) Plan earnings, and charged with an allocation of administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF ACCOUNTING

The accompanying financial statements of the Plan are prepared under the accrual method of accounting in conformity with accounting principles generally accepted in the United States of America.

PAYMENT OF BENEFITS

Benefits are recorded when paid.

VALUATION OF INVESTMENTS

The assets of the Plan are primarily invested in a Master Trust which is composed of common and collective trust funds, mutual funds, employer securities in the Agere Stock Funds, cash and cash equivalents, and until December 2004 and October 2003, the Lucent Stock Fund and Avaya Stock Fund, respectively. The common and collective trust funds are valued in units by the Fund manager based on the fair market value of securities held by the Fund. Mutual funds are valued at the quoted net asset value of shares. The Agere Stock Funds and the Lucent Stock Fund are valued in units by the Fund Manager based on the fair value of securities held by the Fund. Cash and cash equivalents are valued at cost, which

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

NOTES TO FINANCIAL STATEMENTS

approximates fair value. Participant loans are not part of the Master Trust and are valued at cost which approximates fair value.

Purchases and sales of investments are recorded on a trade-date basis. Dividend income is recorded on investments held as of the ex-dividend dates. Interest income is recorded on the accrual basis.

USE OF ESTIMATES

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

RISKS AND UNCERTAINTIES

Investments held by the Master Trust are exposed to various risks, such as interest rate, market and credit risk. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, it is at least reasonably possible that changes in risks in the near term would materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits and the statement of changes in net assets available for benefits.

The Plan's exposure to a concentration of credit risk is limited by the diversification of investments across fifteen fund elections. Additionally, the investments within each participant-directed fund election are further diversified into varied financial instruments, with the exception of the Agere Stock Funds and the Lucent Stock Fund, which primarily invest in securities of a single issuer.

3. TAX STATUS

The Internal Revenue Service has determined and informed the Company by a letter dated February 2, 2004, that the Plan and related trust are designed in accordance with applicable sections of the IRC. The Plan has been amended after receiving the determination letter. However, the Plan administrator and the Plan's tax counsel believe that the Plan is designed and is currently being operated in compliance with the applicable provisions of the IRC.

4. TERMINATION PRIORITIES

Although it has not expressed any intent to do so, the Company reserves the right under the Plan to terminate, alter, amend, or modify the Plan subject to the provisions of ERISA. In the event of Plan termination, the Plan provides that the net assets are to be distributed to participants in amounts equal to their respective interests in such assets.

5. PLAN EXPENSES

The Company is responsible for certain administrative fees for the Plan, notably investment management fees, the cost of issuing Agere stock for matching contributions, and the cost of performing non-discrimination testing.

Costs associated with Plan participation that are paid by participants include: (a) expenses incurred by the various investment funds, including management fees and transaction costs such as brokerage commissions, which expenses are reflected in the net asset value of the investment funds; and (b) fees associated with initiating a loan under the Plan, which fees are paid by a participant requesting a loan.

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

NOTES TO FINANCIAL STATEMENTS

6. PLAN ASSET TRANSFERS

There were transfers between the Plan and the Agere Systems Inc. Management 401(k) Plan which resulted in a net transfer of approximately \$80,000 to and \$40,000 from the Agere Systems Inc. Management 401(k) Plan during the years ended December 31, 2004 and 2003, respectively. There were transfers between the Plan and the Lucent Savings Plan during the year ended December 31, 2003.

7. MASTER TRUST INVESTMENTS

The Agere Systems Inc. Management 401(k) Plan and the Plan have participating interests in the assets of the Master Trust. Investment income and the Plan's interest in the net assets of the Master Trust are allocated based on the participant balances within each fund for each plan. Investment income allocations will vary between the Plans depending on participant investment elections. The Plan's interest in the Master Trust was 10% and 13% as of December 31, 2004 and 2003, respectively.

Use of a master trust permits the commingling of various investments for Company-sponsored defined contribution plans. Although assets are commingled in the Master Trust, Fidelity Investments Institutional Operations Company, the Plan Record keeper, maintains separate records for each plan.

The following represents financial information regarding the net assets and investment income of the Master Trust, as well as the Plan's interest in the Master Trust, which was certified as being accurate and complete by Fidelity Management Trust Company.

Investments at fair value (in thousands):

	December 31,	
	<u>2004</u>	<u>2003</u>
Investments at fair value:		
Cash and cash equivalents	\$ 44,267	\$ 30,775
Employer securities	31,586	83,427
Corporate stock	4,734	3,663
Mutual funds	323,306	293,476
U.S. government securities	23	15
Corporate fixed income securities	21	124
Common / Collective trusts	<u>193,507</u>	<u>204,994</u>
Total investments	<u>597,444</u>	<u>616,474</u>
 Plan's interest in Master Trust	 <u>\$ 61,989</u>	 <u>\$ 80,267</u>

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

NOTES TO FINANCIAL STATEMENTS

Investment income of the Master Trust for the years ended December 31, 2004 and 2003 was comprised of (in thousands):

Investment Income:

	December 31,	
	<u>2004</u>	<u>2003</u>
Net appreciation in fair value of investments:		
Mutual Funds.....	\$ 22,676	\$ 50,281
Common / Collective trusts	8,071	17,060
Employer Securities.....	(32,734)	45,116
Corporate Stock.....	8,448	1,146
Corporate and Government debt.....	<u>1</u>	<u>5</u>
	6,462	113,608
Interest on interest bearing cash	351	325
Other dividends and interest income	<u>11,976</u>	<u>12,544</u>
Total investments income.....	<u>\$ 18,789</u>	<u>\$ 126,477</u>

8. RELATED PARTY TRANSACTIONS

Certain Plan investments in the Master Trust are shares of mutual funds and common/collective trusts managed by affiliates of the Trustee and, therefore, these transactions qualify as party-in-interest transactions. Agere is also a party-in-interest to the Plan under the definition contained in section 3(14) of ERISA. Two of the funds that participants are invested in are the Agere Class A Stock Fund and the Agere Class B Stock Fund, each of which invests primarily in stock of the Company. Therefore, transactions in these funds qualify as party-in-interest transactions.

9. PLAN AMENDMENTS

The Company's Employee Benefits Committee amended the Plan effective June 1, 2003, increasing the maximum weekly Matched Contribution from \$70 to \$75. Further, the vesting schedule was changed to fully vest participants in their Company Matching Contributions at all times.

10. SUBSEQUENT EVENTS

Effective March 28, 2005, the distribution rules under the Plan were amended to specify that if a participant separates from service for any reason other than death and the value of the participant's account is \$1,000 or less, then the participant's account balance will be distributed as soon as practicable after the participant's termination. The prior threshold for this distribution was \$3,500.

On May 27, 2005, the Company reclassified its Class A and Class B common stock into a new, single class of common stock, and effected a 1-for-10 reverse stock split. As a result, the Agere Class A stock fund and Agere Class B stock fund were replaced with a new Agere Stock fund. Participants' account values did not change as a result of this transaction.

**AGERE SYSTEMS INC.
REPRESENTED 401(k) PLAN**

**Schedule H, Line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)
AS OF DECEMBER 31, 2004**

NAME OF ISSUER AND TITLE OF ISSUE	DESCRIPTION	FAIR VALUE
*Participant Loans	155 outstanding loans with interest rates ranging from 4.00% to 9.5% and with maturities through 2009.	<u>\$ 815,609</u> <u>\$ 815,609</u>

*Party-in-interest as defined by ERISA

See accompanying independent auditors' report.

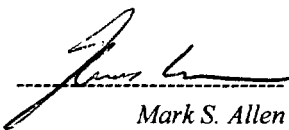
SIGNATURES

THE PLAN. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer Agere Systems Inc. Represented 401(k) Plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

June 20, 2005

Agere Systems Inc. Represented 401(k) Plan

By:

A handwritten signature in black ink, appearing to read "Mark S. Allen", is written over a horizontal dashed line.

Mark S. Allen
Director,
Compensation and Benefits.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements No. 333-76438, 333-105788 and 333-110068 on Form S-8 of Agere Systems Inc. of our report dated June 20, 2004 with respect to the statements of net assets available for benefits of the Agere Systems Inc. Represented 401(K) Plan as of December 31, 2004 and 2003, the related statements of changes in net assets available for benefits for the years then ended, and the related supplemental schedule - Schedule H, line 4i-Schedule of assets (held at end of year) as of December 31, 2004, which report appears in the December 31, 2004 annual report on Form 11-K of Agere Systems Inc. Represented 401(K) Plan.

KPMG LLP

New York, New York
June 23, 2005